



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,210	08/28/2001	Sang Min Lee	DMJOO2	4969
7590	09/02/2004		EXAMINER	
Delphine M. James #170 2656 South Loop West Houston, TX 77054			DINH, DUC Q	
		ART UNIT	PAPER NUMBER	
		2674		
		DATE MAILED: 09/02/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/940,210	LEE, SANG MIN	
	<b>Examiner</b>	<b>Art Unit</b>	
	DUC Q DINH	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 August 2003.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

1. This is response to the Amendment filed on 8/20/03. The indicated allowabilities of claims 2, 8 and 14 are withdrawn in view of the newly discovered reference(s) to Brandenberg et al (U. S. Patent No. 6,665,173). Rejections based on the newly cited reference(s) follow.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7-10, 13-16, 19, 20-22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandenburg et al. (U. S. Patent No. 6,665,173), hereinafter Brandenburg.

In reference to claim 1, Brandenburg discloses in Fig. 6 a handheld computer comprising: keyboard portion 807 having support base and a thumbboard 805 (corresponding to the keyboard) defined by a top surface, a bottom surface, a rear edge, a front edge and a pair of side edges, the thumb board overlaying the top surface of the support base as claimed. An electronic housing 801 having the same structure with the keyboard portion as shown in Fig. 6A. Fig. 6B shows the coupling structure of the keyboard portion and the display portion in an open position such that the bottom surface of the electronic housing is parallel to the bottom surface of the support base as claimed (col. 11, lines 35-53). The device specifically comprising (1) an alphanumeric data input device, such as a full QWERTY-type keyboard or thumbboard; (2) a display device, such as an LCD, LED, or LEP display screen; (3) a processor; (4) a power

source... and (6) a physical housing that contains these components and that consists of at least two discrete portions that may translate, rotate and/or pivot relative to one another, one portion containing a display device and one portion containing a keyboard (col. 7 line 60 – col. 8 line 5).

Fig. 7D show a keyboard having first and second section having plurality of key and being in the form of complementary symmetrical and vertically parallel with the top surface of the keyboard portion.

In addition, Brandenburg discloses that the system also has a plurality of raised grips 621 (corresponding to the hand support means) may be integrated into protective bumpers 619 to facilitate handling of and interaction with device 601. However, Blandenberg does not disclose the raised grips being attached to an side edge of the display portion of the device. Fig. 5 shows and touch pad on the back side of the device. The touch pad is located such that it can be utilize by the user while the device in ether closed state or open state (col. 11, lines 16-34)

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the grips of the system to provide the user hand support while using the touchpad in the back of the display as shown in Fig. 5B or holding the device while typing on the keyboard as shown in Fig. 4.

In reference to claim 2, Fig. 7 shows the appropriate standard QWERTY keyboard format on the left and right hand as claimed.

In reference to claims 3, 9, 15, 21, Fig. 6 A and 6C show the strips surrounding the display which carries the additional input device such as joystick for the system as claimed.

In reference to claims 13 and 14, refer to the rejection of claim 1. In addition, Fig. 1-3 show an embodiment in which the keyboard potion and the display portion connected by sliding

means which comprising bracket and guiding members for the system as claimed (see col. 9, lines 25-45).

In reference to claims 4-10, 16 and 22, see the rejection of claim 1 for the LCD display as claimed.

In reference to claims 7-8 and 19 and 20, refer to the rejection as applied to claim 1.

4. Claims 5, 11, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blandenberg in view of Makala et al. (U. S. Patent No. 6,047,196).

In reference to claims 5, 11, 17 and 23, Blandenburg discloses in Fig. 4, plurality of input devices is provided in the boundary strips around the display device. For examples one boundary may be indicated by a "-" sign and the opposing end boundary may be indicated by a "+" sign (col. 10, lines 26-60). However, Blandenburg does not disclose the plurality of additional alphanumeric key for the system. Makala discloses a portable device having the additional alphanumeric keys in the display portion in Fig. 1.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to learn the teaching of Makala, i.e.: providing additional alphanumeric key, in the boundary strips of the display device of Blandenburg so that it can be used in the open position or in the closed position.

5. Claims 6, 12,18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blandenburg in view of Genest et al. (U. S. Patent No. 6,480,377) hereinafter Genest.

In reference to claim 6, 12, 18, and 24, Blandenburg fails to discloses a pressure sensitive means for allowing data to be input via handwriting and the pressure sensitive means overlapping the

bottom of the display area. Genest discloses handheld computer having a display screen 32 is and LCD screen of the pressure sensitive type.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the pressure sensitive of Greenest in the device of Blandenburg because that would enable the user additional input data or commands into the system.

***Response to Arguments***

6. Applicant's arguments with respect to previous Office Action have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Art Unit: 2674

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,  
Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Technology Center 2600 Customer Service Office whose telephone  
number is (703) 306-0377.

DUC Q DINH  
Examiner  
Art Unit 2674

DQD  
August 27, 2004



REGINA LIANG  
PRIMARY EXAMINER